

PRELIMINARY DRAFT

**CONSUMER and COMMERCIAL PRODUCTS SURVEY
2013 and 2014 DATA RELEASE**

**CARB Public Webinar
June 19, 2018**



Survey Reporting Periods

- ❖ 2013 Data Reporting:
 - Start date: September 2, 2014
 - Reporting Deadline: March 2, 2015

- ❖ 2014 Data Reporting:
 - Start date: July 1, 2015
 - Reporting Deadline: November 1, 2015

- ❖ 2015 Data Reporting:
 - Start date: July 1, 2016.
 - Reporting Deadline: November 1, 2016



Overview of the Scope of 2013 – 2014 Survey

- ❖ Categories: 491 Survey Categories each year
- ❖ Companies: approximately 1400 each year
- ❖ Products: approximately 580,000 for both years
- ❖ Ingredients: approximately 5.4 million for both years
- ❖ Number of new survey categories: 94 each year
- ❖ Aerosol Adhesives and Coatings: only sales for 2013
- ❖ Much larger scope than prior largest survey in 2003

Overview of QA/QC

- ❖ **Consistency of Formulation Assignment to Products**
- ❖ **Completeness of Product Formulations**
- ❖ **Correctness of Product Category Assignments**
- ❖ **Appropriate units (sales, container fill, density *et al*)**
- ❖ **Correctness of chemical names and CAS numbers**
- ❖ **Address stakeholder feedback on current data release**

List of Draft Data Release Documents for 2013 / 2014

- ❖ Draft Data Summary – All Categories
- ❖ Draft TOG Speciation Summary Report
- ❖ Draft TOG Ingredients per Category Code
- ❖ Draft Number of Products per Responsible Party by Category Code
- ❖ Survey Draft Chemical List and Assignments
- ❖ Survey Fate and Transport Adjustments






All documents are posted at:

<https://www.arb.ca.gov/consprod/survey/survey.htm>

Data Confidentiality:

- ❖ Addressed in the design of survey reporting tools
- ❖ Incorporated in all steps of data processing
- ❖ Ensured in the current Draft Data release

Draft Data Summaries for 2013 / 2014

| 2013 CARB Consumer and Commercial Product Survey - Preliminary Draft Data For Public Review | | | | | | | | | | | | | | | |
|---|---|------------------------------------|-------------------|-------------|--|---|---|--------|-------|-------|-----------|-----------|-----------|---|-------------------------------|
| Category Code | Category Name | Product Data | | | | | Emissions Data (Fate and Transport Adjusted) | | | | | | | | |
| | | Reporting Companies | Reported Products | Sales (tpd) | Sales Weighted Average VOC Content (as sold) | Speciation | | | | | VOC (tpd) | ROG (tpd) | TOG (tpd) | Sales Weighted Average PWMIR (gO ₃ /g) | Ozone Forming Potential (tpd) |
| | | | | | | VOC | LVP-VOC | Exempt | Water | Other | | | | | |
| 2013 CARB Consumer and Commercial Product Survey - Preliminary Draft Data For Public Review | | | | | | | | | | | | | | | |
| Category Code | Category Name | Product Data | | | | | Emissions Data (Fate and Transport Adjusted) | | | | | | | | |
| | | Reporting Companies | Reported Products | Sales (tpd) | Sales Weighted Average VOC Content (as sold) | Speciation | | | | | VOC (tpd) | ROG (tpd) | TOG (tpd) | Sales Weighted Average PWMIR (gO ₃ /g) | Ozone Forming Potential (tpd) |
| | | | | | | VOC | LVP-VOC | Exempt | Water | Other | | | | | |
| 10101 | Arts and Crafts Adhesive | 16 | 358 | 1.06 | 0.08% |  | | | | | 0.00 | 0.01 | 0.01 | 0.06 | 0.06 |
| 10102 | Automobile Headliner Adhesive | Omitted to protect confidentiality | | | | | | | | | | | | | |
| 10103 | Automotive Engine Compartment Adhesive | 4 | 9 | 0.02 | Product Formulations Not Requested | | | | | | | | | | |
| 10104 | Carpet and Tile Adhesive | 5 | 31 | 11.11 | 0.02% |  | | | | | 0.00 | 0.10 | 0.11 | 0.03 | 0.30 |
| 10105 | Construction, Panel, or Floor Covering Adhesive | 18 | 161 | 8.31 | 3.61% |  | | | | | 0.30 | 0.40 | 0.54 | 0.09 | 0.77 |
| 10106 | Contact Adhesive - General Purpose | 16 | 111 | 0.35 | 15.35% |  | | | | | 0.05 | 0.06 | 0.06 | 0.46 | 0.16 |
| 10107 | Contact Adhesive - Special Purpose | 8 | 18 | 0.10 | 51.80% |  | | | | | 0.05 | 0.05 | 0.06 | 1.73 | 0.17 |
| 10108 | Fabric/Textiles Adhesive | Omitted to protect confidentiality | | | | | | | | | | | | | |
| 10109 | Flexible Vinyl Adhesive | No Products Reported | | | | | | | | | | | | | |

Speciation Summary Reports

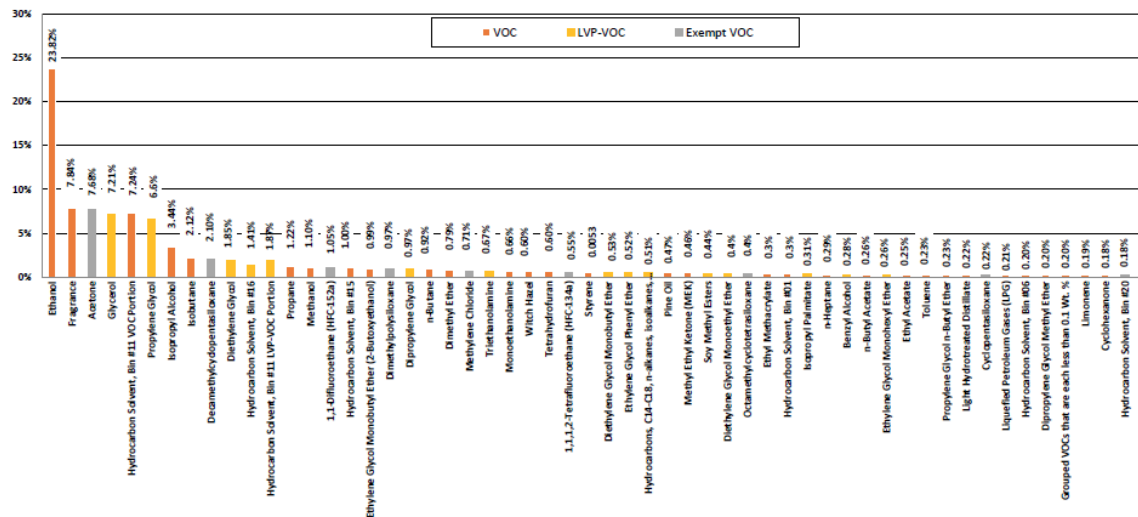
2013 CARB Consumer and Commercial Product Survey

All Categories

Draft Data For Public Review

| | | | |
|---|-----------|---------------|-------|
| TOG (tpd) | 244.2 | ROG (tpd) | 196.6 |
| Sales Weighted Average PWMIR (gO3/g product) | 0.00-1.48 | VOC (tpd) | 153.7 |
| Speciation Based on Reported Product Formulations | 94.8% | LVP-VOC (tpd) | 42.9 |
| Ozone Forming Potential (tpd) | 463.07 | Exempt (tpd) | 47.5 |

Top 95% of TOG Ingredients



TOG Ingredients per Survey Category

| Category Code | | 10101 |
|--|--|------------|
| Arts and Crafts Adhesive | | |
| Top TOG Ingredients | | CAS Number |
| Butyl Acrylate | | 141322 |
| Dimethylpolysiloxane | | 63148629 |
| Ethanol | | 64175 |
| Ethylene Glycol | | 107211 |
| Fragrance | | |
| Glycerol | | 56815 |
| Methyl Ethyl Ketone (MEK) | | 78933 |
| Other Ingredients Omitted to Protect Confidentiality | | |
| Propylene Glycol | | 57556 |
| Vinyl Acetate | | 108054 |

Category Code

10101
10104
10105
10106
10107
10110
10111
10118

Number of Products per Company by Survey Category

| CARB Preliminary Draft Consumer and Commercial Products Survey for Year 2013 | |
|--|--------------------------------|
| Preliminary Draft - June 4, 2018 | |
| Category Code & Category Name | 10101 Arts and Crafts Adhesive |
| Number of Companies | 16 |
| Company Name | Number of Products |
| Carolina Biological Supply Co. | 1 |
| Crayola LLC | 7 |
| CVS Health | 1 |
| Dollar Tree Stores, Inc. | 3 |
| Elmer's Products Inc | 171 |
| Fiebing | 2 |
| Jo-Ann Stores, Inc. | 8 |
| Mega Brands America Inc | 2 |
| Personal Care Products, LLC | 30 |
| Sargent Art, Inc. | 45 |
| Tandy Leather | 4 |
| Target Corporation | 11 |
| The Walt Disney Company | 30 |
| Walgreens Co. | 11 |
| Wilton Brands LLC | 30 |
| Yasutomo Inc. | 2 |
| Total Number of Products | 358 |

| Category Code & Category Name |
|---|
| 10101 Arts and Crafts Adhesive |
| 10103 Automotive Engine Compartment Adhesive |
| 10104 Carpet and Tile Adhesive |
| 10105 Construction, Panel, or Floor Covering Adhesive |
| 10106 Contact Adhesive - General Purpose |
| 10107 Contact Adhesive - Special Purpose |
| 10110 General Purpose Adhesive |
| 10111 Household Glues and Paste |
| 10113 Mist Spray Adhesive |
| 10118 Rubber Cement |
| 10120 Specialty Automotive Adhesive |

| | | | |
|---------|------------------------|--|--------------------|
| READ ME | 2013 List of Companies | 2013 Summary by Survey Category | 2013 All Cat Codes |
|---------|------------------------|--|--------------------|

Chemical List and Assignments

| Chemical Name | CAS # | VOC | LVP-VOC | Exempt |
|--|-----------|-----|---------|--------|
| 1,1,1,2,2,3,4,5,5,5-Decafluoropentane (HFC-43-10mee) | 138495428 | | | 100 |
| 1,1,1,2-Tetrafluoroethane (HFC-134a) | 811972 | | | 100 |
| 1,1,1,3,3-Pentafluorobutane (HFC-365mfc) | 406586 | 100 | | |
| 1,1,1,3,3-Pentafluoropropane (HFC-245fa) | 460731 | 100 | | |
| 1,1,1,3,5,5,5-Heptamethyl-3-octyl-trisiloxane | 17955883 | | | 100 |
| 1,1,1-Trichloroethane | 71556 | 100 | | |
| 1,1,2-Trichloroethane | 79005 | 100 | | |
| 1,1-Diethoxybutane | 3658955 | 100 | | |
| 1,1-Difluoroethane (HFC-152a) | 75376 | | | 100 |
| 1,1-Propanediol | 26264142 | 100 | | |
| 1-Chloro, 2-methylbenzene | 95498 | 100 | | |
| 1,2,3,4-Tetrahydronaphthalene | | 100 | | |
| 1,2,3-Trimethylbenzene | 526738 | 100 | | |
| 1,2,4-Trimethylbenzene | 95636 | 100 | | |
| 1,2,5-Triazine | 9003081 | 100 | | |
| 1,2-Butadiene | 590192 | 100 | | |
| 1,2-Butylene Oxide | 106887 | 100 | | |
| 1,2-Dichlorobenzene | 95501 | 100 | | |
| 1,2-Dichloroethane | 107062 | 100 | | |
| 1,2-Hexanediol | 6920225 | | 100 | |
| 1,2-Pentanediol | 5343920 | | 100 | |
| 1,3,5-Trimethylbenzene | 108678 | 100 | | |
| 1,3-Butanediol | 107880 | | 100 | |

Fate and Transport Adjustments

| Survey Code | Category Name | Adjustment Scenario |
|-------------|---|---------------------|
| 20309 | Garbage Disposal Cleaner | B |
| 20330 | Septic Tank Cleaner | A |
| 20333 | Soap Impregnated Scouring Pad | B |
| 20334 | Toilet/Urinal Care Product (aerosol) | B |
| 20335 | Toilet/Urinal Care Product (nonaerosol) | B |
| 20401 | Dish Detergent/Soap (manual) | B |
| 20402 | Dish Detergent/Soap (machine) | A |
| 20403 | Dishwasher Sanitizer | A |
| 20404 | Film and Spot remover | A |
| 20406 | Pretreatment/Presoak | B |
| 20407 | Rinse Aid | A |
| 20499 | Other dishwashing products | A |
| 20507 | Fabric and Carpet dye | B |
| 20701 | Charcoal Lighter Material | C |

| Adjustment Scenario | Fate Category | Emissions Discount Adjustment Factor for Speciation Categories | | |
|---------------------|--|--|------------------|----------|
| | | Fragrances | VOC | LVP-VOCs |
| A | Closed System (ie Dishwasher, Dryer, Washing Machine) | 50% | 90% for alcohols | 90% |
| B | Open System (ie Hand Dishwashing, Shaving, Shampooing, Mouthwashing) | 25% | 90% for alcohols | 90% |
| C | Combustion (ie Fire Log, Wood Fire Starter) | 90% | 90% for all VOCs | 90% |

Review and Assessment of Draft Survey Data

Number of Companies, Products and Sales for a Survey Category:

- ❖ Realistic representation of market?
- ❖ Reasonable Year to Year Variation?

| Survey Year 2013 | | |
|------------------|--|---------------------|
| Category Code | Category Name | Product Sales (tpd) |
| 20903 | Detergent | 939 |
| 31202 | Pet Care Products (pet litter, etc.) | 668 |
| 20311 | General Purpose Cleaner (non-aerosol) | 383 |
| 20999 | Other laundry products | 382 |
| 21105 | Inks, Toners, Ribbons, and Cartridges for office equipment | 312 |
| 20401 | Dish Detergent/Soap (manual) | 228 |
| 20701 | Charcoal Lighter Material | 212 |
| 30615 | Shampoo | 181 |
| 30207 | Body Wash/Mousse/Gel/Soap/Foam/Scrub | 180 |
| 20905 | Fabric Wash | 174 |
| Survey Year 2014 | | |
| Category Code | Category Name | Product Sales (tpd) |
| 31202 | Pet Care Products (pet litter, etc.) | 1599 |
| 20903 | Detergent | 993 |
| 20311 | General Purpose Cleaner (non-aerosol) | 441 |
| 20999 | Other laundry products | 347 |
| 21105 | Inks, Toners, Ribbons, and Cartridges for office equipment | 297 |
| 20701 | Charcoal Lighter Material | 261 |
| 20401 | Dish Detergent/Soap (manual) | 234 |
| 21201 | Algaecide/Disinfectant/Sanitizer/Shock Treatment | 217 |
| 30207 | Body Wash/Mousse/Gel/Soap/Foam/Scrub | 208 |
| 30615 | Shampoo | 205 |

Review and Assessment of Draft Survey Data

Top 10 TOG emissions Survey Categories

| Survey Year 2013 | | |
|------------------|---|-----------|
| Category Code | Category Name | TOG (tpd) |
| 30606 | Hair Finishing Spray | 12.0 |
| 30201 | Anti-microbial Dry Hand Wash | 9.6 |
| 70208 | Brake Cleaner | 7.9 |
| 30710 | Rubbing Alcohol | 7.4 |
| 30404 | Hand and Body Conditioner, Cream, Lotion, and Moisturizer | 7.2 |
| 20311 | General Purpose Cleaner (nonaerosol) | 6.9 |
| 20102 | Air Freshener, Single Phase Aerosol | 6.3 |
| 30502 | Personal Fragrance Product with 20% or less fragrance | 6.3 |
| 60213 | Multi-purpose Solvent (nonaerosol) | 6.2 |
| 30101 | Antiperspirant | 6.0 |
| Survey Year 2014 | | |
| Category Code | Category Name | TOG (tpd) |
| 30606 | Hair Finishing Spray | 12.8 |
| 20311 | General Purpose Cleaner (nonaerosol) | 8.7 |
| 70208 | Brake Cleaner | 8.7 |
| 60213 | Multi-purpose Solvent (nonaerosol) | 8.1 |
| 30710 | Rubbing Alcohol | 7.9 |
| 30201 | Anti-microbial Dry Hand Wash | 6.9 |
| 20305 | Disinfectant (aerosol) | 6.9 |
| 20903 | Detergent | 6.7 |
| 30404 | Hand and Body Conditioner, Cream, Lotion, and Moisturizer | 6.6 |
| 30502 | Personal Fragrance Product with 20% or less fragrance | 6.0 |

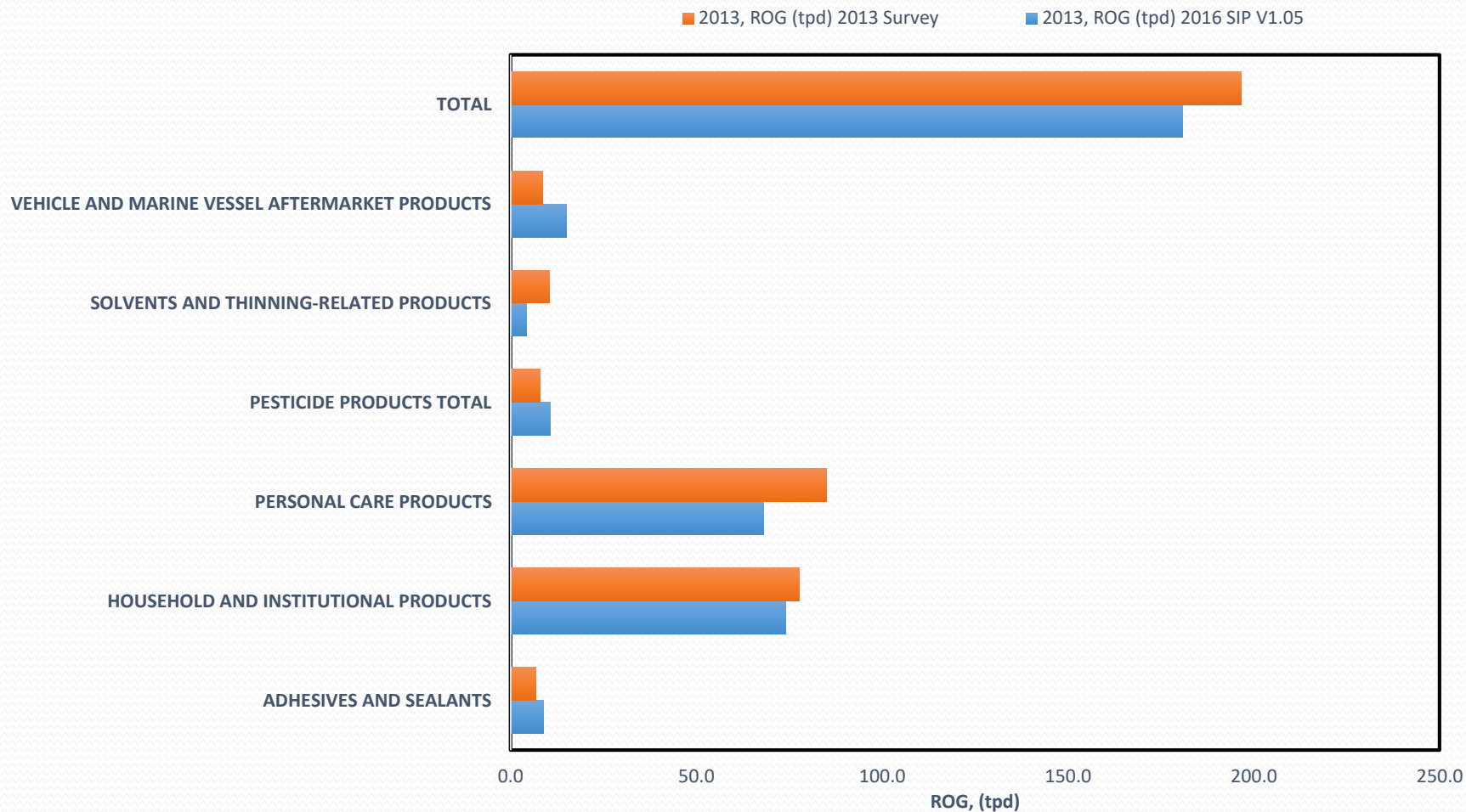
Review and Assessment of Draft Survey Data

Top 10 Ozone Forming Survey Categories

| Survey Year 2013 | | |
|------------------|---|--|
| Category Code | Category Name | Ozone Forming Potential (tons O ₃ /day) |
| 20104 | Air Freshener, liquid/pump spray | 25.5 |
| 20311 | General Purpose Cleaner (nonaerosol) | 24.9 |
| 20903 | Detergent | 23.8 |
| 30404 | Hand and Body Conditioner, Cream, Lotion, and Moisturizer | 19.1 |
| 30606 | Hair Finishing Spray | 15.8 |
| 30201 | Anti-microbial Dry Hand Wash | 14.9 |
| 30999 | Other nail care products | 13.0 |
| 30502 | Personal Fragrance Product with 20% or less fragrance | 12.6 |
| 21405 | Floor Wax Stripper | 11.7 |
| 30102 | Deodorant | 10.5 |
| Survey Year 2014 | | |
| Category Code | Category Name | Ozone Forming Potential (tons O ₃ /day) |
| 20311 | General Purpose Cleaner (nonaerosol) | 31.6 |
| 20903 | Detergent | 28.7 |
| 20104 | Air Freshener, liquid/pump spray | 24.0 |
| 30404 | Hand and Body Conditioner, Cream, Lotion, and Moisturizer | 16.5 |
| 30606 | Hair Finishing Spray | 15.5 |
| 30502 | Personal Fragrance Product with 20% or less fragrance | 11.9 |
| 10115 | Plastic Pipe Cement and Primer | 10.8 |
| 30201 | Anti-microbial Dry Hand Wash | 10.7 |
| 20305 | Disinfectant (aerosol) | 10.6 |
| 20153 | Scented Candle | 9.4 |

Review and Assessment of Draft Survey Data

Comparison of 2013 Survey to SIP Inventory



Next Steps

- ❖ Processing of 2015 Survey data
- ❖ Selective follow-up on non-reporting companies and incomplete data
- ❖ Release of 2015 Survey data in the Fall of 2018
- ❖ Release of updated 2013-14 Survey data in the Fall of 2018
- ❖ Aerosol Coatings Survey in 2019 (of 2018 data)

Draft 2013 and 2014 Data Release Comment Period

Deadline: August 1, 2018

Contacts:

❖ Joe Calavita, Manager

Telephone: 916-445-4586

email: joe.calavita@arb.ca.gov

❖ Kyriacos Kyriacou

Telephone: 916-327-5783

email: Kyriacos.Kyriacou@arb.ca.gov